FBA MATRIX: A NATIONAL SURVEY OF THE EFFECTIVENESS OF A FUNCTIONAL BEHAVIOR ASSESSMENT MATRIX IN GENERATING EXISTING INTERVENTIONS

by

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I have read the thesis of Abbey Nicole Todd in its final form and have found that (1) its format, citations, and bibliographic style are consistent and acceptable; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the supervisory committee and is ready for submission to The Graduate School.

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ABSTRACT

Functional Behavior Assessment (FBA), though mandated by federal law, is a time-consuming and resource-intensive set of procedures that often leads to time-consuming and complicated behavioral interventions. It is often conducted by district experts, and not the educational teams that work daily with students engaging in problem behaviors in schools. The current investigation employed a national survey of CCBD members to see if educational professionals could identify functionally-related interventions for problem behaviors that already exist in their school setting, and do not require additional programs to be designed. The sample was comprised of mostly special education teachers, though some administrators, school psychologists and consultants were included in the sample. The survey included vignettes of fictional students and functions were identified and explicitly stated. The four functions included were: obtain adult attention and obtain peer attention, academic escape, and social escape.

Results of the survey study indicate that professionals were able to identify function-based interventions that exist in their school settings 85% of the time throughout the survey. The majority of interventions reported either antecedent or consequence manipulations, far fewer reporting interventions that aimed to teach a new behavior. Ninety-three percent of interventions reported were positive approaches to modifying

behavior. Whereas respondents did not rate the FBA Matrix as very helpful, they did identify that they like the fact that FBA procedures lead to effective interventions and teamwork among professionals. The most frequently reported complaint about FBA was that it is very time-consuming.

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CHAPTER 1

INTRODUCTION

Review of the Literature

Functional behavior assessment (FBA) is a set of systematic procedures designed to identify environmental factors that reliably predict the occurrence or non-occurrence of a problem behavior (Ervin et al., 2001; March & Horner, 2002; Stitcher, Shellady, Sealander, & Eigenberger, 2004; Sugai, Lewis-Palmer, & Hagan, 1998). The process of FBA has become well known in school communities in the last decade. The amendments made to the Individuals with Disabilities Education Act in 1997 (IDEA '97) recognized the necessity of FBA in using positive behavior supports for serious problem behaviors, and therefore mandated its use in certain situations.

The conceptual and empirical groundwork for the modern procedures known as FBA was laid decades ago. Arguably, the greatest contributions were made by B.F. Skinner in a 1953 publication in *Science of Human Behavior*. Therein, Skinner outlined his model of operant behavior. He also identified classes of variables that influenced human behavior. What followed was Skinner's identification of some of the most basic

principles of behavior that we have today: reinforcement, punishment, extinction, and stimulus control (Ervin, 2001). Through these findings, Skinner concluded that human behavior could be drastically changed through systematic and consistent application of behavioral principles (Ervin, 2001).

FBA Procedures

Several different types of procedures have been outlined as suggested components of an FBA. Those procedures include review of records, interviews of the people in closest contact with the problem behavior, direct observation in the setting where the problem behavior is most likely to occur, and functional analysis (Olympia, Tuesday-Heathfield, Jenson, & Clark, 2002; O'Neill, et al., 1997). It is important before beginning an FBA to describe and operationally define the target behavior (O'Neill, et al., 1997; Sugai, Lewis-Palmer, & Hagan, 1998). An operational definition is one that defines a behavior in terms that are measurable and observable so that anyone familiar with the definition can reliably distinguish when the behavior occurs and does not occur. This can be accomplished during the interview process by asking questions of those who commonly observe the behavior including teachers, parents, related service providers, administrators, and the student. Following the definition of the behavior, it is necessary to identify and describe environmental conditions that precede and follow the target behavior and are functionally related to its occurrence. Direct observation (preferably at multiple times of day and in multiple settings) is crucial in making these decisions. During direct observation, the observer is attempting to determine why the student continues to engage in problem behavior, in other words, the function of the behavior.

Gresham et al. (2001) have identified five categories of behavioral functions. The first category is social attention, which means that the student continues to act out because he is reinforced by the attention he receives from either an adult or his peers. When the student acts out in a disruptive way in the classroom and his peers laugh at him, the behavior continues to occur or increases because the student is reinforced by this attention. The second function identified by Gresham et al. is access to tangibles or preferred activities. When the student engages in the target behavior, he gains access to an object or activity that he finds pleasurable. An example of this function is when a student continually breaks pencils so he is given a pen to work with when the rest of the class is not allowed to use a pen. The next function is escape or delay of aversive activities. In this case, when the student engages in the target behavior, he is able to avoid an activity that he does not find pleasurable. A good example of this is when a student is sent to time-out for misbehaving during reading time, which he hates. The student is able to avoid the aversive task of reading and sit in time-out instead. Next, and related to the previous is escape or avoidance of individuals. In this circumstance, the student engages in the target behavior in order to avoid working with or being near a particular student or adult that he does not like being with. In this case, a student may act out and be required to stay in from recess, which he actually prefers because students are bullying him on the playground. The final function described by Gresham et al. is internal stimulation. This is most commonly referring to self-stimulatory behaviors (e.g., rocking or flapping), typically observed in populations of students with autism or severe intellectual disabilities. In this case, the student is automatically reinforced by engaging

in the behavior. The first four of these five functions are the most commonly observed in students with mild disabilities and will be the focus of this research study.

The next step in the FBA process is the formation of a hypothesis regarding the antecedents and/or consequences that are related to the target behavior (Gresham, Watson, & Skinner, 2001). The antecedent is the event(s) that occurs just prior to the target behavior. The consequence is the event that follows the behavior. Consequences of interest are those that either increase or decrease the likelihood of the target behavior occurring. When Jessica is given a math worksheet that is too difficult for her to complete independently (antecedent), she usually begins to complain of a headache/stomachache (behavior) and is allowed to go to the nurse's office and take her worksheet home where her father will help her complete it (consequence). In other words, the student is engaging in problem behavior to escape an aversive academic task.

Functional analysis is used in some cases (usually research situations) in order to confirm the accuracy of the hypothesis statement. Functional analysis is the systematic manipulation of antecedent or consequence conditions to confirm the hypothesized function(s) of the target behavior (O'Neill, et al., 1997). In the above example, functional analysis would involve taking data while varying the difficulty of math assignments expected to be completed independently (antecedent manipulation). It may also involve responding differently to the complaints of headache/stomachache and not allowing the student to escape the assigned task (consequence manipulation).

Finally, interventions are designed that address the function of the behavior as determined by the FBA (Ervin, et al., 2001; Sugai, et al., 1998). Data collected from an FBA should always lead to the development of a behavior intervention plan (BIP). A

BIP is a plan of action developed by a team of educators that includes the intervention that will be used to decrease or increase, if desired, the target behavior. Appropriate and effective interventions are those that address the function that the behavior is serving as determined by the FBA. Comprehensive BIPs should address all factors contributing to the maintenance of problem behavior. In essence, when planning interventions, antecedent manipulation, teaching a new behavior, and consequence manipulation are all considered.

FBA and the Law

The Individuals with Disabilities Education Act was amended in 1997. At this time, a large emphasis was placed on developing safe schools where students are able to learn most effectively (Drasgow & Yell, 2001). This goal, however, must always be kept in balance with the rights of all students to receive a free and appropriate public education. In many disciplinary situations, these two goals come in conflict with one another. For this reason, IDEA '97 mandated that students being served with an Individualized Education Program (IEP) have appropriate goals, which include individualized behavioral strategies and supports (Drasgow & Yell, 2001).

Drasgow and Yell (2001) outlined specific situations in which FBA *should* be conducted as well as situations in which FBA is required by IDEA '97. Those situations in which an FBA is the best educational practice, and *should* be conducted include: (a) when a student's behavior impedes either his own learning or the learning of others, (b) when a student's behavior is dangerous to either himself or others, or (c) when suspension or placement in an interim alternative educational setting (IAES) approaches

10 cumulative days (Gable & Hendrickson, 1999). Those situations in which FBA is mandated by law include: when a student is suspended for more than 10 consecutive days, or when a student is placed on an interim IAES, usually for weapon or drug offenses (Drasgow & Yell, 2001). In these cases, the IEP team must convene to discuss the FBA and BIP within 10 school days from the time of the suspension of more than 10 days, or the change of placement (Drasgow & Yell, 2001). Though the law mandates the use of FBA in such situations, it does not define FBA specifically, or give any standards as to what should be included in either the FBA or the BIP. The IDEA 1997 also does not provide timelines for the completion of the FBA or the development and institution of a BIP.

Though the law has not identified what should be included in a thorough FBA for problem behaviors in schools, researchers have recommended standard types of procedures including interview, observation, and record reviews (Feinstein, 2003; Olympia, Tuesday-Heathfield, Jenson, & Clark, 2002) Olympia et al. argued for the use of a multifaceted approach to FBA with students with externalizing behavior disorders. These researchers suggest that an FBA for such students is commonly addressing behavioral excesses. For such a situation, they recommend using systematic interviewing such as the Functional Assessment and Interventions Program (FAIP; Reavis, Jenson, Morgan, Likins, & Althouse, 1999). In addition to systematic interviewing, direct observation is recommended. The direct observation described by Olympia et al. is one that measures both the occurrences of inappropriate behaviors and the percentage of time engaged in the expected activity.

There are still concerns regarding the process of training individuals on the procedures of FBA. Conroy, Clark, Fox, and Gable (2000) recognized that, despite the research-base on the effectiveness of FBA, there are many educators with limited training at this point. It has been suggested that higher education be involved in developing standards of the best practices of FBA training (Conroy, et al., 2000; Stitcher, Shellady, Sealander, & Eigenberger, 2000). Some general areas of content that have been suggested in making FBA as effective as possible among educators include knowledge and application of applied behavior analysis, knowledge and application of FBA procedures, complex function-based interventions, collaboration skills, and positive behavioral supports (Conroy, et al., 2000).

Research on the Effectiveness of FBA

Research on the effectiveness of FBA-based interventions indicates significant reductions in problem behavior with students with severe disabilities (Drasgow, Yell, Bradley, & Shriner, 1999; Stitcher, et al., 2000). In discussing the results of a meta-analysis of 482 studies involving this population (Didden, Duker, & Korzilius, 1997), Drasgow, et al. (1999) stated, "The results of this meta-analysis clearly indicate that FBAs make an important and significant contribution to treatment success outcomes" (p. 247).

Since FBA became a legal requirement for all students with disabilities, there has been much effort to assess the most effective and efficient ways to use FBA with students with mild/moderate disabilities in school settings. It has been suggested that implementing an FBA with students with mild/moderate disabilities can be a more

difficult undertaking because, due to their average intelligence and developed language abilities, problem behaviors may serve multiple functions and be influenced by multiple situations and factors (Drasgow et al., 1999). However, recent research provides evidence for the efficacy of FBA-based interventions with students with mild/moderate disabilities.

Reid and Nelson (2002) reviewed the literature on FBA and students with high-incidence problem behaviors. Fourteen studies met criteria for inclusion in the review, which examined a total of 43 students. This review included studies in special schools, self-contained classrooms, and general education classrooms. Though diagnoses were reported for only 17 students, all those reported were either attention-deficit/hyperactivity disorder or emotional/behavioral disorders. Of the studies included, typically reported behaviors included noncompliance, destruction of property, or classroom disruption. The majority of these behaviors were found to be maintained by either attention or escape. In 12 of the 14 studies, clear reductions in problem behavior were reported.

FBA and Emotional/Behavioral Disorders

Heckaman et al. reviewed 22 studies in which FBA was used in intervention planning for students either classified as or at-risk of having behavior disorders. The behaviors identified for assessment and intervention included classroom disruption, noncompliance, and tantrumming. They found that regardless of the type of intervention, the majority of studies demonstrated reduction of problem behavior after the implementation of intervention. Of the four studies that reported only partial success, all described problems with the consistency of intervention implementation. Of the

interventions reported, six were antecedent manipulations, four were combination of antecedent and consequence manipulation, and six were consequence manipulations. In addition, six of the interventions involved teaching a new skill. In seven of the reported studies, data were collected during a follow-up period. In all seven of these studies the positive behavior changes were observed to continue to be reduced in the weeks following the study. This meta-analysis demonstrated the effectiveness of functional assessment-based interventions with students identified or at-risk for behavior disorders.

FBA and Specific Learning Disabilities

Drasgow et al. (1999) stated that in regard to students with mild/moderate disabilities, "The limited amount of existing research that has examined the application of FA to these students substantiates its potential contribution" (p. 247). FBA has also been found to be effective in intervention planning for students classified with learning disabilities (Burke, Hagan-Burke, & Sugai, 2003). Sugai and Horner (1999) make the point that FBA is not only for students with disabilities, and that the FBA leads to improved understanding of behavior, so it should be implemented whenever a BIP is being developed.

Sterling-Turner, Robinson, and Wilczynski (2001) used FBA in a case study of a 13-year-old student classified with a specific learning disability. The behavior identified for assessment was spit-ball throwing in a general education math class. This behavior was occurring 10 or more times during a given class period. Investigators used teacher interviews with both the general education and the special education teachers, curriculum-based assessment in math, direct observations by both teacher's and a

consultant's data collection, and functional analysis. The functional analysis was used to test three competing hypotheses that were developed. Analyses confirmed that the function of the student's behavior was to gain peer attention. An intervention was developed that offered peer attention for task engagement instead of spit-ball throwing. Within 1 week, rates of the target behavior decreased to zero.

FBA in General Education Settings

Doggett, Edwards, Moore, Tingstrom, and Wilcynski (2001) used an abbreviated FBA (teacher interview and direct observation) in two case studies of general education elementary school students. The behaviors of interest in this study were out-of-seat, inappropriate teacher engagement, and inappropriate peer engagement. Following FBA procedures, hypotheses were developed regarding the function of each student's inappropriate behaviors. The hypothesized function for the first student was teacher attention, and for the second student it was social attention (from both teacher and peers). Both hypotheses were confirmed and the conditions of both analyses in which the social attention was removed led to dramatic declines in target behaviors for both students. At the end of the study, both general education teachers, who previously had no training in FBA, rated the procedures that were used in their classroom as acceptable and effective.

Obstacles to the Implementation of FBA

One complication with the use of FBA in school settings is the excessive amount of time that it takes to conduct an FBA (Magee Quinn, 2000). The assessment procedure in and of itself is complicated, time consuming, and rigorous (Gable & Hendrickson,

1999; Magee Quinn, 2000). In addition, once a BIP is created, regular data should be kept to evaluate the effectiveness of the intervention(s) being used. Data collection takes time and resources after the assessment phase of FBA is complete. Nelson (1999) states that "some legal scholars believe that school districts will have to hire full-time behavior specialists to conduct functional behavior assessments and write positive behavioral intervention plans because current IEP team members lack the knowledge, skills, and time to do so" (p.171).

In addition to the amount of time that an FBA takes, in many cases, it also requires the use of other resources. As Sugai et al. (1998) mention, a team must consider schedules, people, materials, and training in the development and implementation of a BIP. Often, the development of a BIP involves creating new interventions that may not already be in place in the school. There is a need to help educators utilize existing resources, programs, and interventions that can be matched up functionally to specific problem behaviors.

In many cases in which FBA would not be a legal requirement due to the lack of severity of problem behavior, determining the function of problem behavior for intervention planning would still be useful (Sugai et al., 1998). For this reason, there is a need for tools that can help educators think functionally about problem behaviors. Once a function has been determined, such tools should help to identify resources, programs, or interventions that are already in place in the school setting. Efficient ways to identify interventions that match the function of problem behaviors are needed for educators.

Purpose of This Study

The purpose of this study was to assess the effectiveness of an FBA matrix in helping educators identify resources, programs, or interventions that already exist in their schools that match the function a problem behavior serves. This FBA matrix provides a quick visual aid to help educators match existing school interventions to the hypothesized function of student problem behavior. The matrix is intended to decrease the need to design highly individualized or resource intensive interventions for each student who exhibits problem behavior.

Research Questions

1. Are special education teachers able to identify functionally-related intervention, resources, and programs with the use of the matrix?
2. Are professionals with more experience conducting FBA able to generate more interventions that are functionally appropriate than those with less experience?
3. What interventions are most frequently reported by consequence condition (e.g., social attention, tangibles, escape)?
4. What percentage of interventions generated are antecedent manipulation, what percentage are consequence manipulation, and what percentage are teaching of a new behavior?
5. What is the percentage of positive interventions generated compared to reductive interventions?
6. Do teachers find the FBA matrix useful?

CHAPTER 2

METHODS

Participants

A national mailing list was obtained from the Council for Children with Behavior Disorders (CCBD). Using a random numbers table, a random national sample of 300 CCBD members was identified for inclusion in the survey study. The states included for sampling were the 10 states with the highest membership from CCBD. Those states are California, Florida, Georgia, Illinois, Kentucky, New York, Ohio, Pennsylvania, Texas, and Virginia. Demographic information was obtained regarding occupation (special education teacher, regular education teacher, school psychologist, para-educator, or other related service provider), years of experience, and U.S. state of employment. The state in which the participant is employed was coded on the survey and the return envelope to ensure the anonymity of the participants.

The sample of participants was stratified by state. Membership of CCBD from each of the 10 states sampled in the nation was first counted. A percentage of CCBD membership from each state was identified by dividing the state's membership number

by the total membership of the 10 states. This percentage was used to divide the 300 surveys and send them to the corresponding states in order to ensure that the sample was representative of the current membership of CCBD.

Design and Measurement

A seven-page survey (see Appendix A) was developed to obtain information from educators about their experience and understanding of FBA methods and procedures. The items were organized into three major sections: (a) vignettes and FBA matrices, (b) demographic information, and (c) questions to determine social acceptability of the FBA matrix. The first component of the survey included the section of the FBA Matrix that corresponded with the function being investigated by that particular vignette. Each function included four spaces for classroom interventions and four spaces for school-wide interventions. The original matrix included four major functions of inappropriate classroom behavior (for students with mild to moderate disabilities) across the top and several blank spaces beneath each function. This space was intended for professionals to identify interventions that exist in their schools that would match the functions of inappropriate behavior listed across the top. Four vignettes were provided to give respondents an example of the types of behavior that would result when a student is trying to attain the specific function. To minimize confusion and maximize space for response, the matrix was separated for each vignette. The respondent saw only one column of the matrix at a time. Under each vignette, the respondent saw two tables with one column and six rows each. The first table was for classroom interventions and the second for school-wide interventions. The top row of each table stated the function of the

behavior (as had been stated in the vignette). The second row included an example response, and the following four rows left room to name and explain each intervention. Following the matrices were 12 multiple-choice or short answer questions intended to gather demographic information and level of training/competence with FBA procedures.

A field test was used in order to refine the survey and make it clear and concise. Twenty local special educators were selected to complete the draft questionnaire. The purpose of the field test was to identify any important revisions that would improve clarity and ease of completion for educators, and to obtain an estimate of the time required to complete the questionnaire. Several revisions were made following the field test. First, the final survey used the table format described previously because feedback from the field test suggested that respondents were confused by the entire matrix appearing on each page. Second, the final survey included two sections for respondents to develop interventions: one section for classroom interventions and one for school-wide interventions. The directions were also reworded and made more clear as a result of comments that reflected confusion on the part of field test respondents.

Procedures

All mailings for this study were conducted in accordance with the Dillman Total Design Method (Dillman, 1978). The initial mailing to 300 CCBD members included a cover letter (see Appendix B) briefly explaining the study and encouraging participation. It also included a copy of the survey instrument, a self-addressed, stamped return envelope, and a tea bag for preparation and consumption while completing the survey.

The first follow-up mailing was a postcard (see Appendix C), reminding the educator of the study and the survey that they received. It thanked those who had already completed and returned the questionnaire, and encouraged those who had not to do so promptly. This postcard was sent out 1 week after the original mailing to all 300 names in the original sample (Dillman, 1978). The final mailing was sent out 2 weeks after the postcard, and was sent only to those names in the original sample for which a response had not yet been received. The final mailing included a new cover letter (see Appendix D) explaining once again the importance of their response to the results of the study. In addition to this cover letter, a new copy of the survey instrument was provided along with another self-addressed, stamped envelope. A response rate of 18% (55 surveys) was received.

CHAPTER 3

RESULTS

A total of 55 of the 300 surveys were returned completed. Approximately 12 other surveys were returned, but not completed for various reasons (e.g., individual had passed away, worked in a setting that was not applicable to the questionnaire, or did not want to respond because the survey was numbered). Surveys were not used unless there were responses to at least one vignette and the demographic questions. The highest percentage of returned surveys came from Florida (16%), California (15%), Pennsylvania (15%), Illinois (11%), Texas (10%), and Virginia (10%) (See Table 1). The highest percentage of respondents reported working as Special Education teachers (53%). Next in frequency was administrators (15%), Behavior Specialist/Consultant (11%), and School Psychologist (5%) (see Table 1). Demographic information on years' experience was collected by asking how many years people had worked in education, and how many years they had worked as a classroom teacher. Responses to the years' experience question ranged from 1 to 30, and years as a classroom teacher ranged from zero to 30. Twenty-four percent of respondents reported working with elementary-aged students,

Table 1.

Demographic Information of Survey Participants (n=55)

Characteristic	%	n
State of Employment		
California	15	8
Florida	16	9
Georgia	7	4
Illinois	11	6
Kentucky	7	4
New York	5	3
Ohio	5	3
Pennsylvania	15	8
Texas	10	5
Virginia	10	5
Current Position		
Special Education Teacher	53	29
School Psychologist	5	3
Administrator	15	8
Behavior Specialist/Consultant	11	6
Other	16	9
Grade Level of Responsibility		
Elementary	24	13
Secondary	36	20
Both/All	40	22

36% working in the secondary grades, and 40% reported working in all grades (See Table 1).

The reliability of data entry was checked for all items on all surveys by a second observer. Data entry reliability was calculated using the following formula: [agreements/ (agreements + disagreements)] x 100, and was found to be 99%. Reliability of coding was checked by a second observer on 24% of returned surveys (13 surveys). Coding reliability was calculated using the same formula. Reliability of coding was calculated to be 89%. Data were entered into SPSS and descriptive statistical analyses were conducted on the corrected database. A variety of statistical calculations were used to analyze survey data including: means, standard deviations, percentages, and frequency counts.

Identifying Functionally-Related Interventions

To determine whether special education teachers were able to identify functionally related interventions using the matrix, interventions were coded as function-based, not function-based, and unclear. The interventions coded as "unclear" were not specific enough to be coded. Descriptive statistics were used to identify percentages, means, and standard deviations of interventions generated. Eighty-five percent of interventions reported on all the surveys were coded as function-based, 11% were not function-based, and 4% were coded as "unclear." Of all interventions reported for the function "obtain adult attention," 79% were coded function-based, 16% as not function- based, and 5% as unclear. For the "obtain peer attention" condition, 79% were coded as function-based, 16% as not function-based, and 5% as unclear. Of all interventions reported under the "academic escape" condition, 92% were coded as function-based, 6% as not function-

based, and 3% as unclear. Finally, for the "social escape" condition, 90% of interventions were coded as function-based, 6% as not function-based, and 3% as unclear (See Table 2).

Level of Experience and Ability to Generate Functionally-Related Interventions

To determine the relationship between level of experience and ability to generate function-based intervention, the percentage of function based interventions reported on each survey was computed and correlated with several variables related to FBA experience level. There was a statistically significant relation between number of years experience in education and percentage of function-based interventions reported, $r = .276$, $p < .05$ (two-tailed). In addition, the relation between number of years as a classroom teacher and percentage of function-based interventions was also statistically significant, $r = .376$, $p < .01$ (two-tailed). In contrast, correlations between percentage of

Table 2

Rates of Function-Based Interventions

	Adult Attention	Peer Attention	Academic Escape	Social Escape	Total Survey
Function-Based	79	79	92	90	85
Not Function-Based	16	16	6	6	11
Unclear	5	5	2	3	4

Note. The values represent percentages of responses falling in each category.

function-based interventions reported and number of FBAs conducted in the last 12 months and number of FBAs conducted in an individual's entire career were not statistically significant. These correlations were $r = .116$, $p > .05$ (two-tailed) and $r = .208$, $p > .05$ (two-tailed), respectively.

Most Frequently Reported Interventions

To determine the most frequently reported interventions by consequence condition, each intervention reported was coded into one of 26 categories. These categories were determined by careful observation of all responses in order to make short answer responses more uniform. Frequencies were calculated for each intervention by consequence condition. For example, for the peer attention condition, the frequency of participants who reported peer tutoring as an intervention was summarized. The top 10 interventions reported on the entire survey were: peer tutoring/group work including partner work (11%), helper/runner (11%), academic modification (10%), time spent with adult (9%), access to preferred activity (8%), counseling/social skills training (6%), differential attention (5%), leadership role (5%), referral/evaluation to special education or related service provider (4%), and other, which was the category for anything that did not fit in one of the other categories (6%) (See Table 3).

For the "obtain adult attention" condition, the top four interventions reported were: helper/runner (23%), time spent with adult (23%), differential attention (8%), and token economy/point system (5%) (see Table 4). For the "obtain peer attention" condition, the top four interventions reported were: leadership role (15%), peer tutoring/group work (15%), helper/runner (10%), and access to preferred activity (9%)

Table 3.

Frequencies of Interventions by Condition

Intervention	Adult Attention	Peer Attention	Academic Escape	Social Escape	Total Survey
Time Spent with Adult	66	2	13	12	93*
Helper/ Runner	67	25	6	15	113*
Timeout	4	16	6	3	29
Differential Attention	22	13	6	8	49*
Contracts/ Earn Reward	7	5	4	7	23
Peer Tutoring/ Group Work	14	38	32	31	115*
Token Economy/ Point System	16	8	8	3	35
Contact Home/ Parents	3	4	0	1	8
Leadership Role	6	39	0	6	51*
Counseling/ Social Skills Training	11	16	5	33	65*
Preferred Activity	14	23	20	20	77*
Offer Choices	0	2	5	12	19
Group Contingency	2	2	0	1	5
Level System	1	2	0	0	3
Removal of Privileges	3	1	5	0	9
Detention/ ISS/ Suspension	2	7	5	1	15
Environmental Arrangement	6	6	7	10	29
Public Posting	6	7	2	0	15
Extracurricular	1	16	0	8	25
Breaks	1	0	3	5	9
Modification	2	0	95	9	106*
Referral/ Evaluation	10	5	25	2	42
Teach Alternate Behavior	6	3	5	6	20
OTHER	22	16	15	12	65*

Note. The values represent frequencies of interventions by consequence condition.

* Identify top 10 most frequently reported interventions.

(see Table 5). For the "academic escape" condition, the top 4 interventions reported were: academic modification (36%), peer tutoring/group work (12%), referral/evaluation (9%), and access to preferred activity (7%) (see Table 6). For the "social escape" condition, the top four interventions reported were: counseling/social skills training (16%), peer tutoring/group work (15%), access to preferred activity (10%), and helper/runner (7%) (see Table 7).

Types of Interventions Reported by Consequence Condition

To determine the type of intervention that was reported (antecedent manipulation, consequence manipulation, or teaching of a new behavior), interventions were coded as A, antecedent manipulation; B, teaching a new behavior; C, consequence manipulation; or D, don't know/unclear. Some examples of interventions coded as antecedent manipulation included: academic accommodations or modifications, contracting, and environmental arrangement such as moving a student's desk, or allowing the student a quiet place in the classroom or school to work. Examples of interventions coded as teaching a new behavior included social skills training, keyboarding instruction (when the function of the behavior was academic escape), and self-monitoring strategies. Examples of interventions coded as consequence manipulation included time-out, in-school suspension, detention, differential attention, and anything that a student could "earn" based on appropriate behavior such as time spent with adult, privileges, or tangible rewards. Finally, interventions were coded as unclear when it was not clear if the intervention was to be used as an antecedent or a consequence. For example, in many

Table 4

Most Frequently Reported Interventions Reported for Adult Attention Condition

Intervention	%	*n*
Helper/Runner	23	67
Time Spent with Adult	23	66
Differential Attention	8	22
Token Economy/Point System	5	16
Preferred Activity	5	14
Peer Tutoring/Group Work	5	14

Table 5

Most Frequently Reported Interventions Reported for Peer Attention Condition

Intervention	%	*n*
Leadership Role	15	39
Peer Tutoring/Group Work	15	38
Helper/Runner	10	25
Preferred Activity	9	23
Timeout	6	16
Counseling/Social Skills	6	16
Extracurricular	6	16

Table 6

Most Frequently Reported Interventions for Academic Escape Condition

Intervention	%	n
Modification	36	95
Peer Tutoring/Group Work	12	32
Referral/Evaluation	9	25
Preferred Activity	7	20
Time Spent with Adult	5	13
Token Economy/Point System	3	8

Table 7

Most Frequently Reported Interventions for Social Escape Condition

Intervention	%	*n*
Counseling/Social Skills	16	33
Peer Tutoring/Group Work	15	31
Preferred Activity	10	20
Helper/Runner	7	15
Time Spent with Adult	6	12
Offer Choices	6	12

cases for the "obtain adult attention" function, respondents wrote, "help the secretary/custodian/lunch workers." It was not clear if this intervention was to be set up as an antecedent intervention to offer the student more adult attention noncontingent upon their behavior, or if the intervention was to be earned by the demonstration of appropriate behavior, in which case, it would be a consequence intervention. The percentage of each type of intervention (antecedent manipulation, consequence manipulation, and teaching a new behavior) is reported below first for each consequence condition and then for the entire survey (See Table 8).

Of all the surveys returned, 32% of interventions reported were coded as antecedent manipulation, 11% were coded as teaching a new behavior, 38% were coded as consequence manipulation, and 20% were coded as unclear. For the "obtain adult attention" condition, 15% of interventions reported were coded as antecedent manipulation, 7% as teaching a new behavior, 51% as consequence manipulation, and 26% coded as unclear. For the "obtain peer attention" function, 20% of interventions reported were coded as antecedent manipulation, 7% as teaching a new behavior, 43% as consequence manipulation, and 31% coded as unclear. For the academic escape condition, 59% of interventions reported were coded as antecedent manipulation, 9% as teaching of a new behavior, 27% as consequence manipulation, and 4% were coded as unclear. Finally, for the "social escape" condition, 34% of interventions reported were coded as antecedent manipulation, 24% as teaching a new behavior, 25% as consequence manipulation, and 17% were coded as unclear (See Table 8).

Table 8

Rates of Intervention Type by Consequence Condition

	Adult Attention	Peer Attention	Academic Escape	Social Escape	Total Survey
Antecedent	15	19	59	34	32
Behavior	7	7	10	24	11
Consequence	51	43	27	25	37
Unclear	26	31	4	17	20

Note. The values represent percentages of interventions by type.

Positive Versus Reductive Interventions

To determine the extent to which interventions were positive versus reductive, interventions were coded as positive, reductive, or neutral, and the percentage of each is reported below. Interventions were coded as positive if they included a stimulus applied with the intent to increase the occurrence of a particular behavior, or if they included any antecedent manipulation or teaching of a new behavior. Interventions were only coded as reductive if a stimulus was applied with the intent to reduce a particular behavior (timeout, ISS, suspension, detention, etc.) For the entire survey, 93.14% of interventions reported were coded as positive, 2.43% were coded as reductive, and 1.46% were coded as neutral. For the "obtain adult attention" condition, 94.18% of interventions reported were coded as positive, 4.11% were coded reductive, and 1.71% were coded as neutral. For the "obtain peer attention" condition, 89.84% of interventions reported were coded as positive, 9.77% were coded as reductive, and 0.39% were coded as neutral. For the "academic escape" condition, 92.88% of interventions reported were coded as positive,

5.99% were coded as reductive, and 1.12% were coded as neutral. For the "social escape" condition, 96.12% of interventions reported were coded as positive, 2.43% were coded as reductive, and 1.46% were coded as neutral (see Table 9).

Social Acceptability

Respondents were asked to rate how helpful they found the format in generating existing interventions, on a scale ranging from 1 (very helpful) to 5 (not at all helpful). The mean rating of all responses was 2.96. Sixty percent of respondents rated the helpfulness of the survey at a 3, reflecting a neutral response. Although respondents did not rate the format as extremely helpful, they were able to generate function-based

Table 9

Rates of Positive Versus Negative Interventions

by Consequence Condition

	Adult Attention	Peer Attention	Academic Escape	Social Escape	Total Survey
Positive	94	90	93	96	93
Negative	4	10	6	2	6
Neutral	2	---	1	2	1

Note. The values represent percentages of interventions coded positive, negative, and neutral. Data not reported contributed less than 1%.

interventions by using it. It is important to consider that due to the need to provide enough space for responses and to simplify visual presentation, the entire matrix was not presented in its original form.

When respondents were asked what they liked most about FBA, the most frequently reported response was that it leads to effective interventions (n=15). The second most frequent response reflected the idea that educators like learning why a student is acting out (n=10). Next, respondents commented that they appreciated the teamwork involved in FBA (n=8). Educators also commented that they like the fact that FBA procedures are objective and concrete, and that it helps focus on the problem and solution, avoiding becoming emotionally involved (n=6). Respondents also commented that they appreciated the individualized nature of FBA because it looks at the child's entire experience (n=5). Respondents mentioned that they like the fact that FBA is an excellent source of information (n=4). A few questionnaires included responses indicating the advantages of becoming aware of antecedents within the classroom because then those antecedents can be addressed and other students may benefit (n=3). Finally, a couple of surveys mentioned that FBA leads to teaching students new skills (n=2) and that it is research-based and data-driven (n=2).

When asked what they liked least about FBA, the most frequent response was that it is time consuming (n=28). The second most frequent response was the amount of paperwork involved (n=10). The third most frequently reported response reflected the fact that consistent implementation and support from the entire team is difficult to obtain (n=8).

CHAPTER 4

DISCUSSION

The current study aimed to investigate the usefulness of a FBA matrix in generating functionally-related interventions that already exist within schools which can be used to address students' problem behaviors in schools. It has been repeatedly recognized that while FBA has been found effective and useful with populations of individuals with low-incidence disabilities, it is quite time-consuming to be used practically for students with high-incidence disabilities in school settings (Gable & Hendrickson, 1999; Magee-Quinn, 2000; Reid & Nelson, 2002). The FBA Matrix is intended to be one tool that can be used by school professionals in the intervention-planning phase of FBA to minimize the amount of time and resources that FBA procedures take.

Identifying Functionally-Related Interventions

The current study aimed to determine whether or not respondents were able to identify behavior interventions that are related to the function determined for the inappropriate behavior. Previous research has determined that behavior interventions that are function-based are significantly more effective in reducing inappropriate classroom behavior than those that are not function-based (Newcomer & Lewis, 2004). The results of the current study indicate that educators are able to identify functionally-related interventions when the function of the inappropriate behavior is provided. One point for consideration is that it may be easier for educators to identify and develop function-based interventions when the function is clearly specified than it is to first identify the function of the behavior and then to develop appropriate interventions. Crone et al. (2005) found that following training in schools, school teams still had the most difficult time identifying competing behaviors that would serve the same function in the classroom. Respondents were better able to identify functionally-related interventions for the escape conditions than for the attention conditions.

Level of Experience and Ability to Generate Functionally-Related Interventions

Number of years experience, both in education overall and in current position, was found to be related to respondent's ability to identify functionally-related interventions. In contrast, the number of FBAs conducted either in the last year or in an individual's career was not related to the percentage of function-based interventions reported. This was due, in part, to the fact that the overall percentage of functionally-

related interventions was rather high (mean= 85%), so there was little variability in this variable while years' experience ranged from 1 to 30. The questions inquiring about years working in education and years as a classroom teacher were both open ended, so the respondent filled in the blank with a number of years. Number of FBAs conducted in the last 12 months followed the same format. However, in order to gather data regarding the number of FBAs conducted in an individual's entire career, a scaled response format followed (None, 1-5, 6-10, 11 or more). This format may have limited the range available to calculate correlations.

Most Frequently Reported Interventions

The most frequently reported interventions throughout the survey were Peer Tutoring/Group Work, and Accommodations/Modifications. The Peer Tutoring/Group Work category included any type of intervention that intentionally paired or grouped students (with or without adults) for either an academic or a social task. Examples included partner reading, group project facilitated by an adult, lunch buddies, and peer tutoring in a younger or special education class. This category of intervention was reported frequently for the Peer Attention condition, and both Escape conditions. Similar interventions have led to increased academic engagement, and reductions in off-task behavior in addition to improved academic performance for children diagnosed with ADHD (DuPaul, et al; 1998). A research review including 14 studies conducted by Ryan, et al. (2004) also found peer-mediated learning strategies effective across academic areas and grade levels for students with emotional and behavior disorders (EBD).

Accommodations/Modifications consisted of 89% of those interventions reported for the Academic Escape conditions. This category included any attempt to modify classroom expectations for a student so that they may succeed. Common examples included allowing a student to use a word processor or Alphasmart, reading material aloud to a student, allowing him/her to dictate assignments, and breaking assignments into chunks. This last accommodation has been shown quite effective when used to address escape-maintained off-task behavior in a recent study conducted by Moore et al. (2005). Moore and colleagues demonstrated a drastic reduction in off-task behavior with students whose behavior had been identified as escape-maintained. The intervention involved breaking one approximately 15-minute task into four separate chunks, and time spent off-task was reduced from nearly 60% to well below 20%. Accommodations and modifications may be more frequently reported by special education teachers than general education teachers due to their level of expertise in this area. For this reason, the frequency with which this type of intervention was reported may be an overestimate of the extent to which all teachers use these interventions.

The two most commonly reported types of interventions for the Obtain Adult Attention (OAA) category were time spent with adult, and helper/runner. Time spent with adult accounted for 23% of interventions reported for the OAA condition, and 9% of those reported for all conditions on the entire survey. Examples of interventions that comprised this category were lunch with teacher or principal (contingent or noncontingent upon behavior), assigning an adult mentor, or visit with an adult in the school. Helper/Runner accounted for 23% of interventions reported for the OAA condition, and 11% of those reported for all conditions on the entire survey. Examples of

interventions that were coded in the helper/runner category included running errands for the teacher, helping the school secretary, custodian, or lunch workers, or taking attendance in the classroom.

A meta-analysis was conducted to determine the effectiveness of various behavior interventions (Stage & Quiroz, 1997). The interventions that appeared in the meta-analysis that had the highest effect sizes were not among the most frequently reported interventions on this survey. Interventions with the largest effect sizes according to the Stage and Quiroz meta-analysis were group contingency (1.02), self-management (.97), differential reinforcement (.95), token economies (.90), and stimulus cueing (.83).

Types of Interventions Reported by Consequence Condition

The current investigation looked at the type of interventions (i.e., antecedent, teaching a new behavior, consequence) reported by teachers to address the problem behaviors outlined in the vignettes. Teachers were asked to focus on interventions that already existed in their classroom and/or school. Heckaman, et al. (2000) reviewed 22 studies, and found educators reporting use of a similar frequency of the three types of interventions (antecedent manipulation, consequence, manipulation, and teaching a new behavior/skill). Whereas 9 of 22 studies employed a combination of types, 14 included antecedent manipulation, and 14 included consequence manipulation, and only 5 of 22 studies taught a new skill or behavior as part (or all) of the intervention. While antecedent manipulation and consequence manipulation are both important and effective ways to intervene with problem behavior, teaching students new skills and behaviors (replacement behaviors) so that they can get their needs met in more socially acceptable

and appropriate ways reduces the chance that the problem behavior will be necessary for the student in the future. Marzano and Marzano (2003) reported a 25% decrease in disruptive behavior after social skills instruction.

The type of intervention reported in this study varied widely depending on the consequence condition. For the peer and adult attention conditions, the greatest proportion of interventions reported were consequence manipulations, whereas for the escape conditions, respondents most frequently reported antecedent manipulations. This is likely reflective, in part, of the high frequency of academic accommodations and modifications reported for the academic escape condition, which were all coded as antecedent manipulations. In addition, contingent attention of some type was frequently reported for the attention conditions and that was always coded as a consequence manipulation. When the data were coded, there were a fairly high percentage of interventions coded "unclear." This was because it was not always clear if interventions were intended to be contingent upon appropriate behavior or not. For example, for the adult attention condition, it was quite common for a response to read, simply, "help the secretary." If the respondent had intended to set up this intervention because it was clear that the student needed some time with an adult, but it was not contingent upon the student's behavior, it would be an antecedent manipulation. If, however, time helping the secretary was dependent on the student engaging in an appropriate behavior, it would be considered a consequence intervention. For this reason, if there was not a statement clarifying if the intervention was contingent upon behavior or not, it was coded as "unclear."

Positive Versus Reductive Interventions

A very high proportion of interventions reported were coded as positive. This finding was surprising and encouraging since previous research indicates that school teams tend to over-rely on reductive (and exclusionary) interventions following FBA data collection (Scott et al., 2005). Interventions were only coded as reductive when privileges were removed, or a stimulus was applied that would decrease the likelihood of the behavior reoccurring. Examples of interventions coded as reductive were: removal of recess, time-out, in-school suspension, or out of school-suspension. These findings could be affected by a few factors. First, special education teachers have likely had training on positive behavior supports and effective behavior management strategies, whereas general education teachers are likely to have very little knowledge of these strategies. Therefore, the sample included in this study is likely to be the personnel in school settings least-likely to over-rely on reductive interventions. Had more general education teachers been included in this study, the results would have likely been different. Secondly, the high proportion of positive interventions reported could be due, in part, to social desirability in responding, and not entirely reflective of the proportion of interventions that are actually being used in classrooms. Finally, it is also possible that special education teachers can demonstrate their knowledge of positive behavior supports easily in the written format provided, in response to the behavior of fictional characters. However, when educators are dealing with their own students in more highly emotional situations, these interventions are practiced less frequently than more punitive, reductive, or exclusionary interventions.

Social Acceptability

Overall, the respondents rated the functional assessment matrix as neutral on a scale of very helpful to not at all helpful. The neutral response to whether or not respondents found the provided format helpful in generating functionally-related interventions may be related to the way that the matrix was presented. As noted previously, in response to comments made during the field testing phase, the FBA matrix was separated into eight discrete sections. Two sections appeared on each page. This made the presentation simpler, provided adequate space for responding, and minimized confusion. It would be interesting to provide the entire FBA matrix to school teams and have them generate as many existing function-based interventions as possible. The matrix could then be used as a menu of interventions when a student is demonstrating difficult classroom behavior and a hypothesis has been formulated as to the function of the student's behavior.

Limitations

There are several limitations to this study which should be considered when interpreting the results. First, of the 300 educators sampled, only 55 responded thoroughly enough to use their responses, which constitutes only 18% of the original sample. In addition, no information is available from those who did not respond. Views and experience with FBA of those who did not respond may vary from those who did, and therefore, results of this study may have varied if a larger sample had been included. The low return rate was likely due to the amount of time and effort required to complete the survey adequately. Though the format was simplified as much as possible, the

majority of the survey required responding in multiple sentences, which not only appears like a lot of work, but is time consuming for educators who already have very limited time. A second limitation is that a large proportion of respondents were in higher education (~16%), administration (5%), or a position that is not regularly conducting FBAs. For this reason, the level of knowledge and experience reflected by the results of this study may not represent the expertise of most special education teachers. Finally, the findings of this study are a result of a self-report measure. It is important to recognize that what has been reported may or may not be an accurate representation of actual practices being used in schools.

Implications and Recommendations for Future Research

Previous research on FBA has found that it is difficult and time consuming, and that it exhausts resources that are already limited. The goal of this study was to see if educators could identify function-based interventions using resources already available in schools. Although the research participants did not find the matrix very helpful, they were able to generate many interventions to support students. Often FBA based interventions are developed by outside experts such as school district behavior specialists or school psychologists. In addition, they are often not utilizing resources that already exist within the school setting. Such interventions require additional time, money, or other resources that are very limited in school settings. The resulting interventions are difficult to implement, and therefore are not implemented with fidelity.

As mentioned previously, a study could be conducted using the FBA matrix in a team setting. School teams could convene and generate a list or of all possible

interventions available in their school. The FBA matrix could then be marked, indicating the functions that each intervention is related to, forming a "menu" of available interventions for each common function maintaining inappropriate classroom behavior. The "menu" of existing resources would then be distributed to teachers to consult in the event that problem behaviors arise and the team or individual teacher has developed a hypothesis regarding the function maintaining the behavior.

In addition, whereas this study found that teachers were able to identify and report positive interventions, it cannot be concluded that these would be the interventions that would actually be implemented. Further research regarding whether the percentages of positive interventions that are implemented following an FBA are as high as those reported would be interesting. Comparisons could be made between special education and general education teachers.

Finally, it would be useful to study the rates of positive interventions utilized when teachers had a list of available resources (the FBA Matrix) readily available. This study could address whether or not teachers over-rely on negative and exclusionary interventions simply because they do not have anything else available. If this were found to be true, providing lists and resources for positive interventions that could be readily available to teachers would be a very useful endeavor.

APPENDIX A

SURVEY INSTRUMENT

Directions for Completing Survey:

After reading each of the following vignettes, please take a moment to identify as many function-based resources/programs and/or interventions as possible that already exist and have been used in the past in your school. We are interested in interventions at both the classroom level and the school-wide level and there is a section following each vignette for you to respond accordingly. If you are not a classroom teacher, please list classroom interventions that you are aware of, or that you know are available in your school. Each vignette is an attempt to illustrate one of the following four functions (ie. Reason why student continues to act out) of inappropriate behavior: 1) to obtain adult attention, 2) to obtain peer attention, 3) to escape difficult academic tasks, or 4) to escape unpleasant social situations. Realize that the vignettes may not be an exhaustive picture of all the many ways that these functions can contribute to disruptive or inappropriate behavior in schools. Students in each vignette could either be in elementary or secondary grades. It is important to know that one resource/program or intervention can serve more than one function. *In other words, peer tutoring could help behaviors motivated by desire for peer attention as well as escape.*

Glossary of Terms:

Functional Behavior Assessment (FBA): A set of procedures used to identify the reason why a student continues to engage in a problem behavior. Information from an FBA is used to develop an appropriate behavior intervention plan (BIP) to reduce or increase the occurrence of the behavior as desired.

Function: The purpose a behavior serves for a student, or the reason they continue to engage in an inappropriate behavior. For example, if the function of an inappropriate classroom behavior is to receive adult attention, every time the student engaged in the inappropriate behavior, adult attention would follow that was pleasurable to the student. This attention would maintain the occurrence of the behavior.

Function-based interventions: Interventions that are designed to address the function of the behavior that has been identified by FBA procedures.

If you would like to receive a copy of the results of this survey, please write "copy of results" on the back of the return envelope with your name and address

Joey thrives on adult attention. He commonly acts out by whining or shouting out in class, or by making inappropriate noises or sleeping on his desk to receive the individual attention of his teacher. Often, he does not complete his assigned school work, is kept back in the classroom, and then seeks the teacher's attention throughout the lunch period. He usually spends free time talking with adults only and has little interest in engaging with other students.

In the spaces below, list resources/programs/interventions that ALREADY EXIST in your **CLASSROOM**:

Obtain adult attention
EXAMPLE: Teacher's runner. Joey can earn the privilege to run errands for the teacher when he behaves appropriately for a designated period of time each day.
1.
2.
3.
4.

In the spaces below, list resources/programs/interventions that ALREADY EXIST in your **SCHOOL**:

Obtain adult attention
EXAMPLE: Secretary's helper. Joey could spend the last 20 minutes of each school day helping the school secretary deliver flyers and messages to teachers for appropriate behavior.
5.
6.
7.
8.

Juan has been placed in a self-contained classroom for his disruptive behavior. He is handsome, smart, and sneaky, and will do about anything to get his peers watching and laughing at him. Juan is a natural leader and the other students imitate his behavior. He has been known to run around the room making noises and generally disrupting the classroom. He talks out frequently and makes inappropriate and off-topic comments that the whole class laughs at. It is clear that Juan's inappropriate and disruptive classroom behaviors are demonstrated to gain the attention of his peers.

In the spaces below, list resources/programs/interventions that ALREADY EXIST in your **CLASSROOM**:

Obtain peer attention
EXAMPLE: Peer tutoring. Juan could be assigned a peer-tutor to help him or to be a peer-tutor for another student who is struggling and needs assistance.
1.
2.
3.
4.

In the spaces below, list resources/programs/interventions that ALREADY EXIST in your **SCHOOL**:

Obtain peer attention
EXAMPLE: Announcements. Juan could earn the privilege to make the school-wide announcements for appropriate classroom behavior.
5.
6.
7.
8.

Carly is a student who receives special education services and has poor fine motor skills. She is bright but suffers from attention problems, and due to her difficulty with fine motor tasks, she hates any assignments that require much writing. She also does not like to read silently. Her time spent engaged in both of these activities has increased this school year. It has been observed that when writing or silent reading is required of her, Carly becomes defiant, and disrespectful. She yells and shouts while refusing to complete her assigned work. She has, on occasion, cursed and called the teacher names. In the past, this behavior has gotten her out of doing the assigned task.

In the spaces below, list resources/programs/interventions that ALREADY EXIST in your **CLASSROOM**:

Escape: Academic
EXAMPLE: Books on tape. Several of the assigned novels at the school are available through the district on tape. The teacher can make these tapes available to Carly.
1.
2.
3.
4.

In the spaces below, list resources/programs/interventions that ALREADY EXIST in your **SCHOOL**:

Escape: Academic
EXAMPLE: Open Gym Time. Carly can earn a period of class time to be spent in the open gym with friends upon completion of a certain assigned reading or writing task.
5.
6.
7.
8.

Candace is and always has been very shy. She is a "loner" in any social activity. She does not like to interact with peers, and will avoid social situations with great effort. She appears recently to have had a bad experience with a few of the other girls in her grade. She spends most of her free time in the bathroom and sits next to the para-professional/supervisor in the lunch room. When asked to do any kind of group project, she will shut down completely and refuse to even leave her desk. She becomes passively non-compliant and buries her head on her desk.

In the spaces below, list resources/programs/interventions that ALREADY EXIST in your **CLASSROOM**:

Escape: Social
EXAMPLE: Personal Time Out. Candace can be offered a quiet corner of the classroom where she can sit and work after a certain period of time has been spent in cooperative work with peers.
1.
2.
3.
4.

In the spaces below, list resources/programs/interventions that ALREADY EXIST in your **SCHOOL**:

Escape: Social
EXAMPLE: Library time. Candace could be offered time shelving books or working independently in the library when she is appropriate with group activities in class.
5.
6.
7.
8.

Please respond to the following questions::

Q-1 **Have you had formal training in Functional Behavior Assessment?**

1 YES
2 NO

Q-2 **If yes, from what organization** (circle all that apply)?

1 SCHOOL DISTRICT WORKSHOP/ TRAINING
2 UNIVERSITY
3 CONFERENCE
4 OTHER (please specify) _____

Q-3 **How many hours of Functional Behavior Assessment training would you estimate that you have had?**

_____

Q-4 **Which of the following describes your position** (circle one)?

1 GENERAL EDUCATION TEACHER
2 SPECIAL EDUCATION TEACHER
3 SCHOOL PSYCHOLOGIST
4 ADMINISTRATOR
5 TEACHER ON A LETTER OF AUTHORIZATION
6 PARA EDUCATOR
7 BEHAVIOR SPECIALIST/ CONSULTANT
8 OTHER (please specify): _____

Q-5 **Please indicate below the number of years of experience you have in the following categories**:

_____ TOTAL NUMBER OF YEARS WORKING IN EDUCATION

_____ NUMBER OF YEARS IN CURRENT POSITION

_____ NUMBER OF YEARS AS A CLASSROOM TEACHER

Q-6 **What grade level(s) do you teach or work with?**

_____

Q-7 How knowledgeable would you consider yourself concerning Functional Behavior Assessment procedures?

KNOWLEDGEABLE UNKNOWLEDGEABLE

1 2 3 4 5

Q-8 How many FULL Functional Behavior Assessments (including interview, observation, record review, etc.) have you conducted in the last 12 months?

_____

Q-9 How many Functional Behavior Assessments have you conducted in your career?

1 NONE
2 1-5
3 6-10
4 11 OR MORE

Q-10 Have you trained or mentored others in the process of FBA and behavior support planning?

1 YES
2 NO

Q-11 How useful did you find this questionnaire in helping you identify resources/programs and/or interventions that already exist in your school to support students who are engaging in problem behavior?

VERY HELPFUL NEUTRAL NOT AT ALL HELPFUL

1 2 3 4 5

Q-12 In your practice, what do you like best about Functional Behavior Assessment?

Q-13 In your practice, what do you like least about Functional Behavior Assessment?

APPENDIX B

COVER LETTER

Dear Fellow Educator,

I am a graduate student in School Psychology at the University of Utah working with Dr. Bill Jenson and Dr. Leanne Hawken. I am interested in practical functional assessment that leads to effective and efficient intervention-planning using resources and/or programs that already exist in schools. As part of my Masters' thesis, I have enclosed a survey. I would like for you to generate a few resources an/or programs that exist in your school that could be used to address problem behaviors in your school. Following this section are some demographic questions for comparison purposes. Included in the survey instrument is a glossary of terms incase wording is unclear. Also included is a post-marked return envelope in which you may return your survey. If you are interested in my results, please write your name and address on the back of your return envelope.

The purpose of this survey is to gather information from school personnel about resources and/or programs that ALREADY EXIST in a school and could be used in intervention-planning. These resources/programs should be of minimal cost, time, and effort for teachers.

Time to Complete Survey: It is anticipated that it will take approximately 10-15 minutes to complete this survey. If you choose to participate in this study, you will be asked to:

(a) complete the enclosed survey, and
(b) return the completed survey in the enclosed self addressed stamped envelope.

Confidentiality & Consent: All of the information that is collected during the study will be kept confidential and will be stored in a locked office in a file cabinet at the University of Utah. All information will be collected anonymously and you will not be identified individually in the results of this study. By completing the survey and returning it in the enclosed self-addressed, stamped envelope, you are agreeing to participate in this survey study.

Voluntary Participation & Risks: Participation in this survey study is entirely voluntary. You may refuse to participate in this survey without consequence. There is very minimal risk to you in participating in this survey study. This survey does not ask for your name and your responses will not be reported individually in the results of this study.

Institutional Review Board: If you have questions regarding your rights as a research subject, or if problems arise that you do not feel you can discuss with the investigators, please contact the University of Utah Institutional Review Board Office at (801) 581-3655.

Costs to Participants & Number of Participants: There are no costs to you for participating in this survey study. A total of 500 participants are being asked to participate in this survey study.

Person to Contact: If you have questions about participating in this survey study or if you would like a copy of the results, you may contact Nicole Todd at the University of Utah's Department of Educational Psychology by phone at (801) 581-7148, or by email at abbeynicole@hotmail.com

Thank you for reading this information. Your time and effort are greatly appreciated. The results of this study will be used to improve functional assessment and function-based interventions for problem behaviors in schools.

Sincerely,

Nicole Todd

APPENDIX C

FOLLOW-UP POSTCARD

Dear Special Educator:

Last week a questionnaire was mailed out seeking your responses on several items related to functional behavior assessment. You were drawn from a random sample of special educators and other school personnel to participate in this survey study.

If you have already completed and returned the questionnaire, please accept my sincere thanks. If not, please take a few minutes to do so today. Because it has been sent to only a small, but representative sample of special education teachers and school personnel, it is very important that your responses are included in the study. I want the results to accurately represent the views of special education teachers nationally.

If by some chance you did not receive the questionnaire, or it has been misplaced, please call me at (801) 897-7573 and I will get another one in the mail to you today. You do not need to give your name, just some demographic information to ensure that the sample is representative. Thanks again for your assistance!

Sincerely,

Nicole Todd, B.S.

APPENDIX D

NEW COVER LETTER

Dear Special Educator:

About three weeks ago we wrote you seeking information on your experience and understanding of functional behavior assessment. As of today, we have not yet received your completed questionnaire.

We have undertaken this study because of the belief that special education teachers can provide us with very valuable information about the uses and understanding of functional behavior assessment in public schools. We are interested in providing teacher-friendly tools to use some of the procedures of functional behavior assessment in classrooms.

We are writing to you again because of the significance each questionnaire has to the usefulness of this study. In order for the results of this study to be truly representative of the opinions and views of special education teachers, it is essential that each person in the sample return their questionnaire. Your responses will help guide us in the development of intervention strategies.

In the event that your questionnaire has been misplaced, a replacement is enclosed. Your responses will be completely confidential. After this mailing, we will not be keeping a record of participants who were contacted for participation in this study. Please let us know your thoughts on these important issues in special education.

If you have questions about participating in this survey study, you can contact us at (801) 897-7573. Your cooperation is greatly appreciated.

Sincerely,

Nicole Todd, B.S. Leanne Hawken, Ph.D. William Jenson, Ph.D.

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